



Innovative New Uses for Soy

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Soy Battles High Fuel Prices with New Insulations and Sealants



With fuel prices as high as they are today, many poultry farmers are finding it difficult to afford the propane to heat their chicken houses. BioBased Systems®, a polyurethane spray foam custom manufacturer, worked in conjunction with agricultural insulation experts to help growers combat this problem by manufacturing a suite of soy-based insulations and sealants specifically for

agricultural uses.

The soybean checkoff supported the development and growth of the soy-based spray polyurethane foam category, which has already grown quite large in the residential and commercial construction market. It appears that the agricultural market is showing similar promise as a new use for soy.

BioBased Systems® manufactures custom spray foam products for its customers while integrating soy ingredients, namely Agrol® polyols, to replace petroleum ingredients typically found in traditional spray polyurethane insulations and sealants.

The agricultural insulation and sealant products are all water blown (versus HCFC blown) and are applied directly to the walls of the chicken house. What this means is that the product won't sag or settle over time like some conventional insulations. When the insulation or sealant is sprayed onto a wall, footer, or roof deck it expands and fills all of the cracks, crevices and voids. As an inert thermo-set plastic, these products are extremely durable.

A study conducted by Auburn University in conjunction with Ag-Tite, a BioBased Systems client, indicated that an analysis of data on poultry houses treated with a soy sealant for one year showed a savings of 35% in energy costs compared to a traditional insulation treatment. Annual heating and fuel savings were 1,850 gallons per poultry house after the treatment.

"We see that in almost all cases, payback of the initial energy retrofit cost is within three years," says Josh Hutchinson, Agricultural Systems Manager for BioBased Systems®.

Soy-based foam insulation and sealant treatments are not only energy efficient, but they act as a barrier to irritants like mold and pollen. By sealing up the house it creates a more comfortable environment for growing, resulting in bigger and healthier birds.

Two independent companies bring to market various custom manufactured soy insulation and sealant products made by BioBased Systems in the U.S. For more information you can visit www.ag-tite.com or www.agseal.com.

To learn more about new uses for soy, visit www.soynewuses.org.